

# REPORT ON BOILERS.

No. 22970

Inversuir Entry  
NOV 28 1938

Received at London Office

Date of writing Report 21<sup>st</sup> Nov. 1938 When handed in at Local Office Hamburg Port of HAMBURG

No. in Reg. Book. 76500 Survey held at Hamburg Date, First Survey 20<sup>th</sup> June Last Survey 9<sup>th</sup> November 1938

on the Steel Single Screw Motor Tanker **INVERSUIR** (Number of Visits 7) Tons { Gross 9456 Net 5561 }

Master \_\_\_\_\_ Built at HAMBURG By whom built Deutsche Werft A. G. Yard No. 203 When built 1938

Engines made at Angsborg By whom made Maschinenfabrik Angsborg Kinnberg Engine No. 690180 When made 1938

Boilers made at HAMBURG By whom made Deutsche Werft A. G. Boiler No. 739 When made 1938

Nominal Horse Power 1000 Owners Inver Tankers, Ltd. Port belonging to Dublin

## WASTE HEAT LA-MONT DONKEY BOILER

~~MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.~~

Headers: Bark & Co, Dortmund.

Manufacturers of Steel Tubes: Mannesmannröhren - Werke Akt. Renscheid. (Letter for Record 5)

Total Heating Surface of Boilers 149 sq. metres Is forced draught fitted - Coal or Oil fired exhaust gas heated -

No. and Description of Boilers one Waste Heat La-Mont Donkey Boiler Coil System Working Pressure 180 lbs

Tested by hydraulic pressure to 325 lbs Date of test 26.8.1938 No. of Certificate 700 Can each boiler be worked separately no

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler one spring loaded

Area of each set of valves per boiler { per Rule - as fitted 35 mm, 962 mm } Pressure to which they are adjusted 180 lbs Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler -

Smallest distance between boilers or uptakes and bunkers or woodwork - Is oil fuel carried in the double bottom under boilers, boiler in twendeck

Smallest distance between shell of boiler and tank top plating - Is the bottom of the boiler insulated -

Largest internal dia. of boilers 1440 mm Length 4270 mm HEADERS Shell plates Material S-NC-Steel Tensile strength 50-60 kg/mm<sup>2</sup>

Thickness φ 120 mm BORE 100 mm φ 90 mm Are the shell plates welded or flanged - Description of riveting: circ. seams { end - inter. - }

long. seams nos of coils: 25 Diameter of coil tubes circ. holes in { circ. seams 32 / 26 mm Thickness 3 mm Pitch of rivets - }

Percentage of strength of circ. end seams { plate - rivets - } Percentage of strength of circ. intermediate seam { plate - rivets - }

Percentage of strength of longitudinal joint { plate - rivets - combined - } Working pressure of tubes shell by Rules 16.25 kg/cm<sup>2</sup>

Thickness of butt straps { outer - inner - } No. and Description of Furnaces in each Boiler

Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Smallest outside diameter \_\_\_\_\_

Length of plain part { top - bottom - } Thickness of plates { crown - bottom - } Description of longitudinal joint \_\_\_\_\_

Dimensions of stiffening rings on furnace or c.c. bottom \_\_\_\_\_ Working pressure of furnace by Rules \_\_\_\_\_

End plates in steam space: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Thickness \_\_\_\_\_ Pitch of stays \_\_\_\_\_

How are stays secured \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_

Tube plates: Material { front - back - } Tensile strength { \_\_\_\_\_ Thickness { \_\_\_\_\_

Mean pitch of stay tubes in nests \_\_\_\_\_ Pitch across wide water spaces \_\_\_\_\_ Working pressure { front - back - }

Girders to combustion chamber tops: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Depth and thickness of girder \_\_\_\_\_

at centre \_\_\_\_\_ Length as per Rule \_\_\_\_\_ Distance apart \_\_\_\_\_ No. and pitch of stays \_\_\_\_\_

in each \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_ Combustion chamber plates: Material \_\_\_\_\_

Tensile strength \_\_\_\_\_ Thickness: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_

Pitch of stays to ditto: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Are stays fitted with nuts or riveted over \_\_\_\_\_

Working pressure by Rules \_\_\_\_\_ Front plate at bottom: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_

Thickness \_\_\_\_\_ Lower back plate: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Thickness \_\_\_\_\_

Pitch of stays at wide water space \_\_\_\_\_ Are stays fitted with nuts or riveted over \_\_\_\_\_

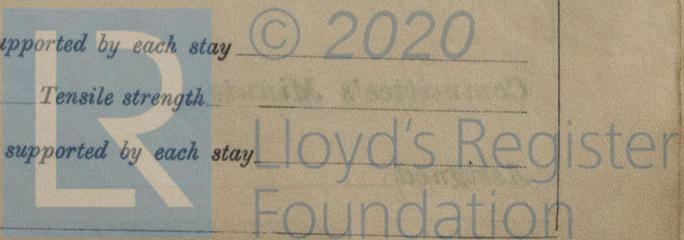
Working Pressure \_\_\_\_\_ Main stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_

Diameter { At body of stay - or Over threads - } No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_

Working pressure by Rules \_\_\_\_\_ Screw stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_

Diameter { At turned off part - or Over threads - } No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_

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Working pressure by Rules  Are the stays drilled at the outer ends  Margin stays: Diameter  { At turned off part, or Over threads.

No. of threads per inch  Area supported by each stay  Working pressure by Rules

Tubes: Material  External diameter  { Plain Stay } Thickness  No. of threads per inch

Pitch of tubes  Working pressure by Rules  Manhole compensation: Size of opening in shell plate

Section of compensating ring  No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends  Depth of flange if manhole flanged  Steam Dome: Material

Tensile strength  Thickness of shell  Description of longitudinal joint

Diameter of rivet holes  Pitch of rivets  Percentage of strength of joint  { Plate Rivets

Internal diameter  Working pressure by Rules  Thickness of crown  No. and diameter of stays

Inner radius of crown  Working pressure by Rules

How connected to shell  Size of doubling plate under dome  Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater  Manufacturers of  { Tubes Steel forgings Steel castings

Number of elements  Material of tubes  Internal diameter and thickness of tubes

Material of headers  Tensile strength  Thickness  Can the superheater be shut off and the boiler be worked separately

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve  Are the safety valves fitted with easing gear  Working pressure as per Rules

Pressure to which the safety valves are adjusted  Hydraulic test pressure: tubes  forgings and castings  and after assembly in place  Are drain cocks or valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with  *yes*

The foregoing is a correct description, *H. Rohrs* Manufacturer.

Dates of Survey while building  { 20<sup>th</sup> and 27<sup>th</sup> June 4<sup>th</sup> and 26<sup>th</sup> August 1938 } Are the approved plans of boiler and superheater forwarded herewith 20.5.38 (If not state date of approval.)

During erection on board vessel  { 30<sup>th</sup> Septemb. 4<sup>th</sup> and 9<sup>th</sup> Nov. 1938 } Total No. of visits  7

Is this Boiler a duplicate of a previous case  *yes* If so, state Vessel's name and Report No. *INVERDARGLE* No. *22865*

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.)

Material and workmanship of this La-Mont-donkey boiler coil system are of good quality. The materials used in the constructions are made at works recognized by the Committee and tested by the Society's Inspectors in accordance with the requirements of the Rules.

This donkey boiler coil system having been made under Special Survey in conformity with the approved plan, the Secretary's letter and otherwise in compliance with the requirements of the Rules is eligible in my opinion to be classed with notation in the Register Book =

One Donkey Boiler (WT) 180 lbs/sq. inch pressure.

Thickness of adjusting washer of safety valve  4 mm.

Survey Fee ... .. *£ RJC : 84 :-* } When applied for, *16/11/38*

Travelling Expenses (if any) £ : : } When received, *29/12/38*

*MR 29/12*

*H. Rohrs*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  *FRI 2 DEC 1938*

Assigned  *See Ham. 76, 22970*

